# National Transportation Sufety Board FACTUAL REPORT AYIATION

NTSB ID: LAX04FA329

Aircraft Registration Number: N16849

Occurrence Date: 09/24/2004

Most Critical Injury: Fatal

Occurrence Type: Accident

Investigated By: NTSB

Location/Time

Nearest City/Place State Zip Code Local Time Time Zone
Kalaheo HI 96741 1642 HST

Airport Proximity: Off Airport/Airstrip Distance From Landing Facility:

Aircraft Information Summary

Aircraft Manufacturer Model/Series Type of Aircraft

Bell 206B Helicopter

Revenue Sightseeing Flight: Yes Air Medical Transport Flight: No

### Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

The Safety Board adopted the final report of this accident investigation, including the analysis and probable cause, on February 13, 2007. The Safety Board's full report will be available soon at http://ntsb.gov/Publictn/publictn.htm. The Aviation Accident Report number is NTSB/AAR-07/03.

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On September 24, 2004, about 1642 Hawaiian standard time, a Bell 206B helicopter, N16849, registered to and operated by Bali Hai Helicopter Tours, Inc., of Hanapepe, Hawaii, impacted mountainous terrain in Kalaheo, Hawaii, on the island of Kauai, 8.4 miles northeast of Port Allen Airport (PAK), Hanapepe. The commercial pilot and the four passengers were killed, and the helicopter was destroyed by impact forces and postimpact fire. The nonstop sightseeing air tour flight was operated under the provisions of 14 Code of Federal Regulations Part 91 and visual flight rules with no flight plan filed. Instrument meteorological conditions prevailed near the accident site.

The air tour flight was conducted under Special Federal Aviation Regulation (SFAR) 71, "Special Operating Rules for Air Tour Operators in the State of Hawaii," and in accordance with a certificate of waiver or authorization approved for Bali Hai by the Federal Aviation Administration's (FAA) Flight Standards District Office in Honolulu, Hawaii. The minimum altitude for tour flights specified in SFAR 71 is 1,500 feet above ground level (agl) and no closer than 1,500 feet to any person or property, unless otherwise authorized. Bali Hai's certificate of waiver or authorization allowed its pilots to deviate from the minimum altitude requirement and to fly transition segments at 1,000 feet agl, cross ridgelines at 500 feet agl, and cross razorback ridgelines at 200 feet agl.

The flight, which was the pilot's eighth and final tour flight for the day, was scheduled to depart PAK about 1600 and fly clockwise around the island of Kauai for a 45-minute sightseeing tour over a number of site-specific locations, including Waimea Canyon, the Na Pali Coast, Waialeale Crater, and Manawaipuna Falls. Digital, time-stamped still images recovered from a passenger's camera showed that, when the helicopter departed, the weather near PAK appeared sunny with good visibility. Subsequent images taken during the tour showed low clouds and precipitation near some site-specific locations.

A review of air traffic control radar data from the FAA's air route traffic control center and radar approach control facility in Honolulu showed the helicopter's ground track entered the area north of Mount Waialeale about 1635; however, the helicopter's flight altitudes could not be determined. The radar data showed that, about 1641, the helicopter crossed a 2,000-foot ridge that extended east from Kahili Ridge, the main ridgeline 3,000 feet south of Waialeale Crater. Shortly thereafter, the helicopter tracked west toward a pass at the top of Kahili Ridge, then crossed Kahili Ridge. About 1642, the radar track depicted the helicopter on the west side of Kahili Ridge

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Narrative (Continued)

as it turned toward the north. The helicopter's ground track then made a 180-degree clockwise turn toward the south and crossed back to the east side of the Kahili Ridge in a zigzag pattern before it was lost from radar at 1642:46. The wreckage was located on the east side of Kahili Ridge about 200 feet below the top of the ridgeline and southeast of the last radar return.

When the helicopter failed to return to PAK as scheduled, Bali Hai personnel notified the tower controllers at Lihue Airport in Lihue, on the island of Kauai, and the U.S. Coast Guard that the flight was overdue. Bali Hai, other air tour companies, and the Coast Guard conducted visual aerial searches, but clouds obscured the location of the crash site. The Coast Guard located the wreckage about 1420 on September 25, 2004. Recovery of the victims and the wreckage took 10 days because of the terrain and weather conditions; according to recovery personnel, heavy downdraft wind conditions and low cloud cover affected the area.

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AVIATION	Occurrence Type: Accident											
Landing Facility/Approach In	formation											
Airport Name		А	Airport ID:	Ai	rport Elevation	Run	way Used	Runwa	y Length	n Ru	nway Width	
					Ft. MSL	. NA						
Runway Surface Type:										I		
Runway Surface Condition:												
Approach/Arrival Flown: NONE	Ē											
VFR Approach/Landing: None												
Aircraft Information												
Aircraft Manufacturer			Model/		ies					Number		
Bell			206B	•					2355			
Airworthiness Certificate(s): Norm	al											
Landing Gear Type: Skid												
Amateur Built Acft? No	Number of Seats:				ax Gross Wt.		3350	LBS	Number	r of Engin		
Engine Type: Turbo Shaft			Engine Ma Allison	ınufa	acturer:		Model/Se 250-C20				ated Power: 20 HP	
- Aircraft Inspection Information												
Type of Last Inspection		[	Date of Las	t Ins	pection	Time Si	nce Last Insp	ection		Airframe <sup>-</sup>	Total Time	
100 Hour			09/2004					19.2 Ho	15982.3 Hours			
- Emergency Locator Transmitter (	ELT) Information											
ELT Installed?/Type No		l I	ELT Operat	ted?		ELT Aid	ded in Locatin	g Accide	ent Site?			
Owner/Operator Information												
Registered Aircraft Owner			Street A	Addr	ess P.O. Box 105	2						
Bali Hai Helicopter Tours, Inc.			City							State	Zip Code	
			Street A	ddra	Kalaheo					HI	96741	
Operator of Aircraft			SileerA	luure	P.O. Box 105	2						
Bali Hai Helicopter Tours, Inc.			City						State	Zip Code		
·			Kalaheo						HI	96741		
Operator Does Business As:						0	perator Desig	nator Co	de: XB	XA		
- Type of U.S. Certificate(s) Held:												
Air Carrier Operating Certificate(s)	:											
Operating Certificate:					Operator Certific	cate:						
Regulation Flight Conducted Unde	r: Part 91: Genera	al Aviatio	n									
Type of Flight Operation Conducted	d: Aerial Observat	tion										
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AVIATION

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	AVIATI	QN		Occurren	ce Type: A	ccident			1					
First Pilot	Information								<u> </u>					
Name	· iiiioiiiiatioii					City					State	Dat	e of Birth	Age
On File						On F	ile			c	n File	Or	n File	39
Sex: M	Seat Occupied	: Right	Occ	cupational Pi	lot?					Certific	cate Num	ber:	On File	
Certificate(		mercial; Mil	itary											
Airplane Ra	ating(s): None	e												
Rotorcraft/0	Glider/LTA: Helio	copter												
Instrument	Rating(s): None	e												
Instructor F	Rating(s): None	е												
Current Bie	nnial Flight Revie	ew? 05/2004	1											
Medical Ce	rt.: Class 1	Medica	al Cert. Status	S: Without \	Vaivers/Lir	mitatior	าร		Date	of Last	Medical I	Exan	n: 10/2003	
		<u> </u>												
- Flight Tim	ne Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine	Ni	ght	Ir Actual	strument Simu	ılated	Rotorcraft		Glider	Lighter Than Air
Total Time		4125	126					28	39					
Pilot In Cor	nmand(PIC)	2820	126											
Instructor		800												
Instruction	Received													
Last 90 Day	ys		126											
Last 30 Day	ys													
Last 24 Ho	urs		6								<u> </u>			
Seatbelt Us	ed? Unknown	Shou	lder Harness	Used? Unk	nown		Toxico	ology Perf	ormed?	Yes	S	Secor	nd Pilot? No	)
Flight Pla	n/Itinerary													
Type of Flig	ght Plan Filed: No	one												
Departure F	Point						State	А	rport Ide	ntifier	Depa	arture	e Time	Time Zone
Hanapepe	<del></del>						ні		AK		1605			HST
Destination							State	A	irport Ide	ntifier				
Local Flig	ht								,					
Type of Cle	earance: None													
Type of Air	space:													
Weather	Information													
Source of	Wx Information:													
	Unkno	wn												
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	ATTACETOR												
	AVIATION		Оссі	urrence Ty	rpe: A	ccident							
Weather	Information	<u> </u>	<u> </u>	<u>-</u>									
WOF ID	Observation Time	Time Zone	WOF E	Elevation	V	WOF Distar	nce From Ac	cident Site		Direction	From Acci	ident Site	9
LIH	1653	HST	1	53 Ft. MSL				9 NM			!	90 Deg.	Mag.
Sky/Lowes	st Cloud Condition: Scatt	tered				270	0 Ft. AGL	Condition of	of LigI	ht: Day			
Lowest Ce	eiling: None			Ft. AGL		Visibility:	10	SM	Alti	meter:	30.0	00	"Hg
Temperati	ure: 27 °C	Dew Point:	21	°C We	eather	r Condition:	s at Acciden	t Site: Visual	Conc	ditions			
Wind Dire	ction: 50	Wind Spe	eed: 14			Wind Gu	usts:						
Visibility (F	RVR): Ft.	Visibility	(RVV)	SM	И								
	d/or Obscuration: bscuration; No Precipit	ation											
Accident	t Information												
	t Information		Aircra	aft Fire: <b>Gr</b>	round	I		Aircraft Exp	olosio	n None			
			Aircra	aft Fire: Gr	round	I		Aircraft Exp	olosio	n None			
Aircraft Da		Fatal	Aircra	aft Fire: <b>Gr</b>			OTAL	Aircraft Exp	olosio	n None			
Aircraft Da	Immage: Destroyed	Fatal 1					OTAL 1	Aircraft Exp	olosio	n None			
Aircraft Da	immage: Destroyed							Aircraft Exp	olosio	n None			
- Injury Su First P	immage: Destroyed							Aircraft Exp	olosio	n None			
- Injury Su First P Secon Studer	Immage: Destroyed  Immary Matrix  Iilot  d Pilot							Aircraft Exp	olosio	n None			
- Injury Su First P Secon Studer	amage: Destroyed  ammary Matrix  bilot  d Pilot  nt Pilot  Instructor							Aircraft Exp	olosio	n None			
- Injury Su First P Secon Studer Flight	amage: Destroyed  ammary Matrix  bilot  d Pilot  nt Pilot  Instructor							Aircraft Exp	olosio	n None			
- Injury Su First P Secon Studer Flight I Check	Immage: Destroyed  Immary Matrix  Iilot  d Pilot  nt Pilot  Instructor  Pilot							Aircraft Exp	blosio	n None			
- Injury Su First P Secon Studer Flight I Check	Immage: Destroyed  Immary Matrix  filot  d Pilot Instructor Pilot Engineer  Attendants							Aircraft Exp	blosio	n None			
- Injury Su First P Secon Studer Flight I Check Flight I Cabin	Immage: Destroyed  Immary Matrix  Illot  d Pilot Instructor Pilot Engineer Attendants Crew							Aircraft Exp	blosio	n None			
- Injury Su First P Secon Studer Flight I Check Flight I Cabin Other I	Immage: Destroyed  Immary Matrix  Illot  d Pilot Instructor Pilot Engineer Attendants Crew	1						Aircraft Exp	blosio	n None			
- Injury Su First P Secon Studer Flight I Check Flight I Cabin Other I Passer	amage: Destroyed  ammary Matrix  filot  d Pilot  Instructor  Pilot  Engineer  Attendants  Crew  Ingers	1					1	Aircraft Exp	blosio	n None			

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## Administrative Information

Investigator-In-Charge (IIC)

Nicole L. Charnon

Additional Persons Participating in This Accident/Incident Investigation:

Dave Lusk Federal Aviation Administration Honolulu, HI

Eric West Federal Aviation Administration Washington, DC

Scott Erickson National Transportation Safety Board Anchorage, AK

William Bramble National Transportation Safety Board Washington, DC

John J Swift Rolls-Royce Indianapolis, IN

Harold Barrentine Bell Helicpter Hurst, TX

Elaine Summers Transportation Safety Board of Canada Canada.

Greg Salottolo National Transportation Safety Board Washington, DC